

WHAT IS CLAIMED

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A
1. A leadframe/stabilizer for use with semiconductor devices, comprising:
a plurality of lead frame leads;
a stabilizer extending partially along the length of and on each side of said lead frame leads; and
a die pad mount integral with and forming a part of said stabilizer.
2. The leadframe/stabilizer according to Claim 1, wherein said stabilizer^{and die pad mount} is made of an insulating material.
3. The leadframe/stabilizer according to Claim 1, wherein said stabilizer^{and die pad mount} is made of a plastic material.
4. The leadframe/stabilizer according to Claim 1, wherein said stabilizer^{and die pad mount} is made of a ceramic material.
5. The leadframe/stabilizer according to Claim 1, wherein said die pad mount has a recess in one surface into which a semiconductor die is mounted.

frame 31 holding the ends of the lead frame leads 36-39 together. Since stabilizer 35 holds lead sets 36-39 in place with the stabilizer fingers 35a, lead sets 36-39 may be separated by the removal of the joining parts of lead frame 31.

Fig. 6 shows the lead frame 30a after the lead frame rails 31 have been removed. The individual leads 36-39 are held in place by the stabilizer fingers 35a. Stabilizer 35 holds the leads in place adjacent the die mount pad area 40.

Stabilizer 35 improves lead-to-lead spacing since the leads are held in place by stabilizer 35. Stabilizer 35 eliminates the need to introduce foreign contaminants such as plastic tape and adhesives that are used as lead stabilizers. Also eliminated in most devices is the need for a die pad mount since stabilizer 35 incorporates a die pad mount into the stabilizer.

An additional feature is the improved adhesion of package mold compound to the mold compound material of stabilizer 35. There is improvement in the relative thermal movement between the semiconductor chip and die mount pad since mold compound replaces the standard metal die pad of most lead frames.

6. A leadframe/stabilizer for use with semiconductor devices, comprising:

a plurality of lead frame leads;

a stabilizer extending partially along the length of and on each side of said lead frame leads;

a die pad mount integral with and forming a part of said stabilizer; and

a recess in one surface of the die pad mount into which a semiconductor die is mounted

7. The leadframe/stabilizer according to Claim 6, wherein said stabilizer is made of an insulating material.

8. The leadframe/stabilizer according to Claim 6, wherein said stabilizer is made of a plastic material.

9. The leadframe/stabilizer according to Claim 6, wherein said stabilizer is made of a ceramic material.

10. A method for stabilizing the leads of a lead frame and providing a semiconductor die mount pad, comprising the steps of:

molding a stabilizer fingers along part of the length and on each side of the lead frame leads;

molding a die pad integral with the stabilizer fingers.

a 11. The method according to claim 10, including the step of forming a recessed area in the die pad for mounting of a semiconductor die. ^{in said recessed area}

12. The method according to Claim 10, wherein said stabilizer is made of an insulating material.

13. The method according to Claim 10, wherein said stabilizer is made of a plastic material.

14. The method according to Claim 10, wherein said stabilizer is made of a ceramic material.

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